

Haverhill, MA  
(978) 914-4097

**Nicholas Zuber**  
<https://nickzuber.com>

<https://github.com/nickzuber>  
[zuber.nicholas@gmail.com](mailto:zuber.nicholas@gmail.com)

## SKILLS

---

### Programming Languages & Frameworks

Proficient in: JavaScript, OCaml, Python, C++, React/Redux, React Native, Node.js  
Experienced with: C, SQL, PHP, Java, Racket, Scheme

## EXPERIENCE

---

### Box

Redwood City, CA

*Software Engineering Intern*

*June 2017 – Aug. 2017*

- Assisted in maintaining ClusterRunner, an open source tool that parallelizes and optimizes test suites for over 100,000 different types of tests internally and is used thousands of times each day
- Implemented SQLite caching layer with ORM and benchmarks to optimize performance
- Restructured and implemented media type versioning for the existing RESTful API

### Robin

Boston, MA

*Software Engineering Intern*

*May 2016 – Aug. 2016*

- Helped build and maintain mobile applications for Android and iOS platforms for thousands of users
- Utilized knowledge of string distance algorithm to build custom approximate string matching module derived with memory efficient alterations, to enhance user experience with search fields
- Applied functional paradigms to take advantage of Redux and to produce testable, deterministic code

### Veranda Outdoors

Haverhill, MA

*Software Engineer*

*May 2015 – Aug. 2015*

- Led a small team of developers to coordinate projects and work flows to increase productivity
- Adapted to legacy software and seamlessly introduced modern software into the ecommerce platform
- Created practical and user friendly wholesale ordering platform for hundreds of important customers

## OPEN SOURCE PROJECTS

---

### Infrared (*static analyzer*)

*Jan. 2017 – Present*

- Constructing a parser using OCaml that transforms JavaScript files into strict abstract syntax trees adhering to Shift specifications
- Statically analyze Shift abstract syntax trees into a graph of nodes to efficiently infer a type system across a project and produce intelligent error messages
- Build an automated testing infrastructure to help easily create and run test suites to ensure correctness of the program

### Needle (*library*)

*Sept. 2015 – Present*

- Working intimately with a wide variety of both commonly used data structures (hash map, k-ary tree, etc.) and more esoteric data structures (rolling hash, bit array, etc.) using JavaScript
- Producing benchmarks to analyze the performance of individual components throughout the library and various types of unit testing for quality assurance
- Optimizing software performance to produce a flexible, lightweight product

## EDUCATION

---

### University of Massachusetts Lowell

*Spring 2018*

*Bachelor of Science in Computer Science, Minor in Mathematics*

*Major GPA: 3.51*

Relevant Courses: Data Structures, Algorithms Analysis, Functional Programming,  
Operating Systems, Discrete Mathematics, Probability and Statistics

Honors: Deans List, UMass Amherst Book Award for Computer Science

Activities: Member of Modern JavaScript Society, Captain of Intramural Soccer Team

Hackathons: HackHarvard, CODEX MIT Media Lab, Hackbeanpot, Hawkathon